

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Amend the paragraph [0007] on page 3 as follows:

As a measure for preventing a gelled product of polyamide formed from m xylylenediamine and adipic acid from occurring, it is considered that at least one kind selected from a lubricant, an organic ~~phosphorous~~ phosphorus stabilizer, a hindered phenol compound and a hindered amine compound is added in an amount of from 0.0005 to 0.5 part by weight (see, for example, Patent Document 7).

Amend the paragraph [0011] on page 7 as follows:

3. A polyamide resin composition containing mainly m xylylenediamine (MXDA) as a diamine component and mainly adipic acid (AA) as a dicarboxylic acid component, the polyamide resin composition having contents of ~~phosphorous~~ phosphorus atoms (P) and sodium atoms (Na) satisfying the following equations (3) and (4):

$$30 \leq P < 200 \text{ ppm} \quad (3)$$

$$3.0 < \text{Na/P (molar ratio)} < 7.0 \quad (4)$$

Amend the paragraph [0013] on page 7 as follows:

5. A polyamide resin composition containing mainly m xylylenediamine (MXDA) as a diamine component and mainly adipic acid (AA) as a dicarboxylic acid component, the polyamide resin composition having contents of ~~phosphorous~~ phosphorus atoms (P) and an alkali metal (M) satisfying the following equations (6) and (7):

$$0 \leq P < 30 \text{ ppm} \quad (6)$$

$$0.1 \leq M < 45 \text{ ppm} \quad (7)$$

wherein M represents an alkali metal species, such as Na, Li and K.

Amend the paragraph [0022] on page 11 as follows:

In order to obtain a polyamide resin composition of the invention having a low back pressure coefficient K^* and good color tone, the contents of metals and the like in the polyamide resin composition are preferably that ~~phosphorous~~ phosphorus atoms (P) and sodium atoms (Na) satisfy the ranges of the following equations (3) and (4) (embodiment A):

$$30 \leq P < 200 \text{ ppm} \quad (3)$$

(ppm: amount (mg) per 1 kg of polymer)

$$3.0 < \text{Na/P (molar ratio)} < 7.0 \quad (4)$$

Amend the paragraph [0023] on page 12 as follows:

The lower limit of the content of ~~phosphoreous~~ phosphorus atoms (P) in the embodiment A is more preferably 40 ppm or more, further preferably 50 ppm or more, particularly preferably 60 ppm or more, and most preferably 70 ppm or more. The upper limit thereof is preferably 170 ppm or less, more preferably 160 ppm or less, further preferably 150 ppm or less, and particularly preferably 130 ppm or less. In the case where the content of ~~phosphoreous~~ phosphorus atoms is too small, the heat stability may be lowered, and the color tone of the polymer may be deteriorated. In the case where the content of ~~phosphoreous~~ phosphorus atoms is too large, on the other hand, the raw material cost for the additive is increased to cause increase in production cost, and the filter is often clogged with foreign matter, which brings about such a possibility that the productivity is deteriorated.

Amend the paragraph [0025] on page 13 as follows:

There are such cases that alkali metals are avoided for applying to an electronic material or the like, and slight bleed out of a ~~phosphoreous~~ phosphorus compound to the surface is avoided. In these cases, as one embodiment of the invention, the contents of ~~phosphoreous~~ phosphorus atoms (P) and an alkali metal (M) of the polyamide of the invention preferably satisfy the following equations (6) and (7) (embodiment B):

$$0 \leq P < 30 \text{ ppm} \quad (6)$$

(ppm: amount (mg) per 1 kg of polymer)

$$0.1 \leq M < 45 \text{ ppm} \quad (7)$$

wherein M represents an alkali metal species, such as Na, Li and K.

Amend the paragraph [0026] on page 14 as follows:

The lower limit of the content of ~~phosphorous~~ phosphorus atoms (P) in the embodiment B is more preferably 1 ppm or more, further preferably 3 ppm or more, and particularly preferably 5 ppm or more. The upper limit thereof is preferably 25 ppm or less, more preferably 20 ppm or less, further preferably 15 ppm or less, particularly preferably 12 ppm or less, and most preferably 9 ppm or less. The lower limit of the content of an alkali metal (M) is more preferably 1 ppm or more, further preferably 3 ppm or more, and particularly preferably 5 ppm or more. The upper limit thereof is preferably 40 ppm or less, more preferably 35 ppm or less, further preferably 30 ppm or less, still further preferably 25 ppm or less, yet further preferably 20 ppm or less, particularly preferably 15 ppm or less, and still particularly preferably 10 ppm or less. In the production process, the number of cleaning operation of a reaction vessel may be increased, ion exchange of water in a cooling step should be sufficiently carried out, and ion exchanged water or distilled water should be used as water for dissolving the raw materials, which bring about considerable increase in cost. In the case where the content of ~~phosphorous~~ phosphorus atoms or an alkali atom is too large, the raw material cost for the additive is increased to cause increase in production cost, and the frequency of filter clogging with the additive upon filtering is increased, which may bring about deterioration in productivity.

Amend the paragraph [0027] on page 15 as follows:

The content ratio between the ~~phosphoreous~~ phosphorus compound and the alkali metal compound may be an arbitrary value as far as the contents of them are within the ranges defined in the invention.

Amend the paragraph [0028] on page 15 as follows:

Examples of the compound containing a ~~phosphoreous~~ phosphorus atom in the polyamide resin composition used in the invention include compounds represented by the following chemical formulae (C 1) to (C 4).

Amend the paragraph [0040] on page 19 as follows:

In order to mix the ~~phosphoreous~~ phosphorus atom-containing compound in the polyamide resin composition of the invention, it may be added to a raw material before polymerization of polyamide or during polymerization, or may be melt-mixed with the polymer. In order to prevent polyamide from suffering heat deterioration upon solid phase polymerization, it is preferred that the ~~phosphoreous~~ phosphorus atom-containing compound is added before starting polymerization.

Amend the paragraph [0042] on page 20 as follows:

The upper limit of the Co-b value in the embodiment A is preferably 5, more preferably 4, further preferably 3, and particularly preferably 2. In the case where the Co-b value is too high, yellowing occurring on a post-process of a bottle, a film, fibers or the like is outstanding, which may brings about deterioration in quality of products. In the case where the Co-b value is decreased excessively, the addition amount of a stabilizer, such as a ~~phosphoreous~~ phosphorus atom-containing compound, may be too large, whereby it is disadvantageous in cost, and filter clogging may occur due to the additive. In order to make the Co-b value within the aforementioned range, the addition amounts of the ~~phosphoreous~~ phosphorus atom-containing compound and the sodium metallic compound may be optimized, and furthermore such measures may be employed that the upper limit of the temperature on reaction is 270°C or less, preferably 265°C or less, and more preferably 260°C or less, and the oxygen concentration on reaction is preferably 200 ppm or less, more preferably 150 ppm or less, and further preferably 100 ppm or less.

Amend the paragraph [0044] on page 21 as follows:

The upper limit of the Co-b value is preferably 9, more preferably 8, further preferably 7, and particularly preferably 5. In the case where the Co-b value is decreased excessively, the addition amount of a stabilizer, such as a ~~phosphoreous~~ phosphorus atom-containing compound, may be too large, whereby it is disadvantageous in cost, and filter clogging may occur due to the additive. In the case where the Co-b value is too high, yellowing occurring on a post-process of

a bottle, a film, fibers or the like is outstanding, which may brings about deterioration in appearance performance of products. In the case where color b value is 5 or more and less than 10, a molded article has slightly yellowish appearance and has slightly yellowish appearance. Therefore, it is difficult to use as a molded article for a purpose that is not allowed to have yellowish appearance (such as products having white to blue appearance), but may be used without problem as a molded article for a purpose that prefers yellowish appearance or that is allowed to have yellowish appearance (such as products having yellow to black appearance and products with no requirement in appearance performance), which provides industrial significance.

Amend the paragraph [0056] on page 28 as follows:

(3) Analysis of P

A specimen was subjected to dry ashing decomposition by allowing to stand with sodium carbonate or to wet decomposition in a sulfuric acid-nitric acid-perchloric acid system or a sulfuric acid-perchloric acid system, to convert ~~phosphoreous~~ phosphorus to orthophosphoric acid. A molybdate salt was reacted therewith in a 1 mol/L sulfuric acid solution to form phosphomolybdic acid, which was reduced with hydrazine sulfate to form heteropoly blue. The absorbance of the heteropoly blue at 830 nm was measured with an absorptiometer (UV 150 02, produced by Shimadzu Corp.) for colorimetric determination.

Amend the paragraph [0061] on page 30 as follows:

EXAMPLE A-1

In a preparation vessel having an inner capacity of 250 L equipped with an agitator, a partial condenser, a thermometer, a dropping funnel and a nitrogen gas introducing tube, 27.66 kg of m xylylenediamine and 29.65 kg of adipic acid, which had been precisely weighed, were mixed at an inter temperature of 85°C to obtain a transparent solution. 1.37 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 3.71 g of CH_3COONa as additives were added thereto, followed by agitating for 15 minutes. The resulting solution was transferred to a reaction vessel having an inner capacity of 270 L, and then reacted under stirring in conditions of an inner temperature of 190°C and an inner pressure of 1.0 MPa. While water distilled was removed outside the system, at a time where the inner temperature became 235°C, the inner pressure was returned to ordinary pressure over 60 minutes. The inner temperature was gradually increased to 260°C. The solution was agitated at ordinary pressure, and the stirring operation was terminated when a target viscosity was obtained, followed by allowing to stand for 20 minutes. Thereafter, a molten resin was taken out from a discharge port at a lower part of the reaction vessel, and the resin was then solidified by cooling and cut with a strand cutter to obtain chips. The resulting resin had a relative viscosity (RV) of 2.10 and a Co-b value of 3.3. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, and then cooled to obtain resin chips. The chips had a water content of 200 ppm and residual amounts of ~~phosphoreous~~ phosphorus atoms and sodium atoms were P = 40 ppm and Na = 134 ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 6 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time.

The back pressure increasing coefficient K^* after extruding for 4 hours was 2.5. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0062] on page 32 as follows:

EXAMPLE A-2

The polymerization method of polyamide was carried out in the same manner as in Example A 1 except that 1.71 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 3.97 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.23 and a Co-b value of 3.1. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, and then cooled to obtain chips. The chips had a water content of 250 ppm and residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were $\text{P} = 50$ ppm and $\text{Na} = 148$ ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 6 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of $20\ \mu\text{m}$, and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 3.5. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0063] on page 33 as follows:

EXAMPLE A-3

The polymerization method of polyamide was carried out in the same manner as in Example A-1 except that 3.42 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 6.62 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co b value of -0.8. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.65, the Co-b value was -1.1, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were P = 100 ppm and Na = 260 ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 14. Observation of the filter revealed that slight clogging was found but was in a level causing no practical problem. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0064] on page 34 as follows:

EXAMPLE A-4

The polymerization method of polyamide was carried out in the same manner as in Example A-1 except that 3.42 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 7.95 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.10 and a Co-b value of -0.9. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C , and then cooled to obtain chips. The RV was 2.65, the Co-b value was -1.3, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were $\text{P} = 100$ ppm and $\text{Na} = 297$ ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of $20\ \mu\text{m}$, and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 7.8. Observation of the filter revealed that slight clogging was found but was in a level causing no practical problem. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0065] on page 35 as follows:

EXAMPLE A-5

The polymerization method of polyamide was carried out in the same manner as in Example A-1 except that 3.42 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 10.59 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.12 and a Co-b value of 1.0.

The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours. The residual amounts of ~~phosphoreous~~ phosphorus atoms and sodium atoms were P = 100 ppm and Na = 371 ppm, respectively, in this stage. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 6 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm, and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K* after extruding for 4 hours was 3.7. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0066] on page 36 as follows:

EXAMPLE A-6

The polymerization method of polyamide was carried out in the same manner as in Example A-1 except that 3.42 g of NaH₂PO₂·H₂O and 0.59 g of CH₃COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.12 and a Co-b value of 1.0. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.65, the Co-b value was 2.0, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphoreous~~ phosphorus atoms and sodium atoms were P = 100 ppm and Na = 371 ppm, respectively. The polyamide resin composition was fused

by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 4.5. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0067] on page 38 as follows:

EXAMPLE A-7

The polymerization method of polyamide was carried out in the same manner as in Example A-1 except that 5.13 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 15.89 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of -0.8. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.50, the Co-b value was 1.5, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were P = 150 ppm and Na = 557 ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time.

The back pressure increasing coefficient K^* after extruding for 4 hours was 5.2. Observation of the filter revealed that slight clogging was found but was in a level causing no practical problem. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0068] on page 39 as follows:

EXAMPLE A-8

The polymerization method of polyamide was carried out in the same manner as in Example A-1 except that 6.50 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 25.16 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of 3.5. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C , and then cooled to obtain chips. The RV was 2.10, the Co-b value was 2.5, and the water content was 250 ppm, in this stage. The residual amounts of ~~phosphoreous~~ phosphorus atoms and sodium atoms were $\text{P} = 190$ ppm and $\text{Na} = 846$ ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 6 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 4.0. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the

resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0069] on page 40 as follows:

EXAMPLE A-9

In a preparation vessel having an inner capacity of 250 L equipped with an agitator, a partial condenser, a thermometer, a dropping funnel and a nitrogen gas introducing tube, 27.66 kg of m-xylylenediamine, 26.41 kg of adipic acid and 3.34 kg of terephthalic acid, which had been precisely weighed, were mixed at an inter temperature of 100°C to obtain a transparent solution. 5.13 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 13.91 g of CH_3COONa as additives were added thereto, followed by agitating for 15 minutes. The resulting solution was transferred to a reaction vessel having an inner capacity of 270 L, and then reacted under stirring in conditions of an inner temperature of 190°C and an inner pressure of 1.0 MPa. While water distilled was removed outside the system, at a time where the inner temperature became 235°C, the inner pressure was returned to ordinary pressure over 60 minutes. The inner temperature was gradually increased to 260°C. The solution was agitated at ordinary pressure, and the stirring operation was terminated when a target viscosity was obtained, followed by allowing to stand for 20 minutes. Thereafter, a molten resin was taken out from a discharge port at a lower part of the reaction vessel, and the resin was then solidified by cooling and cut with a strand cutter to obtain resin chips. The resulting resin had a relative viscosity (RV) of 2.35 and a Co-b value of 4.9. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were $\text{P} = 150$ ppm and $\text{Na} = 501$

ppm, respectively. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, and then cooled to obtain chips. The RV was 2.35, the Co-b value was 4.9, and the water content was 250 ppm, in this stage. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 14. Observation of the filter revealed that slight clogging was found but was in a level causing no practical problem. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0070] on page 42 as follows:

EXAMPLE A-10

In a preparation vessel having an inner capacity of 250 L equipped with an agitator, a partial condenser, a thermometer, a dropping funnel and a nitrogen gas introducing tube, 27.66 kg of m-xylylenediamine, 26.41 kg of adipic acid and 3.45 kg of cyclohexanedicarboxylic acid, which had been precisely weighed, were mixed at an inner temperature of 100°C to obtain a transparent solution. 5.13 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 13.91 g of CH_3COONa as additives were added thereto, followed by agitating for 15 minutes. The resulting solution was transferred to a reaction vessel having an inner capacity of 270 L, and then reacted under stirring in conditions of an inner temperature of 190°C and an inner pressure of 1.0 MPa. While water distilled was

removed outside the system, at a time where the inner temperature became 235°C, the inner pressure was returned to ordinary pressure over 60 minutes. The inner temperature was gradually increased to 260°C. The solution was agitated at ordinary pressure, and the stirring operation was terminated when a target viscosity was obtained, followed by allowing to stand for 20 minutes. Thereafter, a molten resin was taken out from a discharge port at a lower part of the reaction vessel, and the resin was then solidified by cooling and cut with a strand cutter to obtain resin chips. The resulting resin had a relative viscosity (RV) of 2.3 and a Co-b value of -3.1. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were P = 150 ppm and Na = 501 ppm, respectively. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, and then cooled to obtain chips. The RV was 2.30, the Co-b value was -2.3, and the water content was 250 ppm, in this stage. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 6 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μ m, and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K* after extruding for 4 hours was 12. Observation of the filter revealed that slight clogging was found but was in a level causing no practical problem. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0071] on page 44 as follows:

EXAMPLE B-1

In a preparation vessel having an inner capacity of 250 L equipped with an agitator, a partial condenser, a thermometer, a dropping funnel and a nitrogen gas introducing tube, 27.66 kg of m-xylylenediamine and 29.65 kg of adipic acid, which had been precisely weighed, were mixed at an inter temperature of 85°C to obtain a transparent solution. 0.07 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 0.17 g of CH_3COONa as additives were added thereto, followed by agitating for 15 minutes. The resulting solution was transferred to a reaction vessel having an inner capacity of 270 L, and then reacted under stirring in conditions of an inner temperature of 190°C and an inner pressure of 1.0 MPa. While water distilled was removed outside the system, at a time where the inner temperature became 235°C, the inner pressure was returned to ordinary pressure over 60 minutes. The inner temperature was gradually increased to 260°C. The solution was agitated at ordinary pressure, and the stirring operation was terminated when a target viscosity was obtained, followed by allowing to stand for 20 minutes. Thereafter, a molten resin was taken out from a discharge port at a lower part of the reaction vessel, and the resin was then solidified by cooling and cut with a strand cutter to obtain resin chips. The resulting resin had a relative viscosity (RV) of 2.10 and a Co-b value of 5.5. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.65, the Co-b value was 6.5, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were $\text{P} = 1 \text{ ppm}$ and $\text{Na} = 1 \text{ ppm}$, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered

with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 3.0. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0072] on page 46 as follows:

EXAMPLE B-2

The polymerization method of polyamide was carried out in the same manner as in Example B-1. Sodium from water used in a cooling step was intentionally made remain in the resin, and the effect of sodium as an additive was evaluated. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of 7.8. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.65, the Co-b value was 7.8, and the water content was 200 ppm, in this stage. The residual amounts of phosphorous phosphorus atoms and sodium atoms were $P = 0$ ppm and $Na = 0.1$ ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 2.2. Observation of the filter revealed that no

clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0073] on page 47 as follows:

EXAMPLE B-3

The polymerization method of polyamide was carried out in the same manner as in Example B-1 except that 0.33 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 0.86 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of 5.6. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.65, the Co-b value was 6.2, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were P = 5 ppm and Na = 5 ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 3.9. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0074] on page 48 as follows:

EXAMPLE B-4

The polymerization method of polyamide was carried out in the same manner as in Example B-1 except that 1.54 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 0.59 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of 5.3. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, and then cooled to obtain chips. The water content was 200 ppm in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were P = 9 ppm and Na = 9 ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 6 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K* after extruding for 4 hours was 4.6. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0075] on page 49 as follows:

EXAMPLE B-5

The polymerization method of polyamide was carried out in the same manner as in Example B-1 except that 2.6 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 0.9 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of 3.5. The

resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.65, the Co-b value was 3.6, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were P = 15 ppm and Na = 15 ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm, and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K* after extruding for 4 hours was 3.7. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0076] on page 50 as follows:

EXAMPLE B-6

In a preparation vessel having an inner capacity of 250 L equipped with an agitator, a partial condenser, a thermometer, a dropping funnel and a nitrogen gas introducing tube, 27.66 kg of m-xylylenediamine, 26.41 kg of adipic acid and 3.34 kg of terephthalic acid, which had been precisely weighed, were mixed at an inter temperature of 100°C to obtain a transparent solution. 1.54 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 0.8 g of CH_3COONa as additives were added thereto, followed by agitating for 15 minutes. The resulting solution was transferred to a reaction vessel

having an inner capacity of 270 L, and then reacted under stirring in conditions of an inner temperature of 190°C and an inner pressure of 1.0 MPa. While water distilled was removed outside the system, at a time where the inner temperature became 235°C, the inner pressure was returned to ordinary pressure over 60 minutes. The inner temperature was gradually increased to 260°C. The solution was agitated at ordinary pressure, and the stirring operation was terminated when a target viscosity was obtained, followed by allowing to stand for 20 minutes. Thereafter, a molten resin was taken out from a discharge port at a lower part of the reaction vessel, and the resin was then solidified by cooling and cut with a strand cutter to obtain resin chips. The resulting resin had a relative viscosity (RV) of 2.2 and a Co-b value of 7.9. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were P = 9 ppm and Na = 10 ppm, respectively. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, and then cooled to obtain chips. The RV was 2.25, the Co-b value was 9.9, and the water content was 250 ppm, in this stage. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 µm, and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K* after extruding for 4 hours was 3.8. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0077] on page 52 as follows:

EXAMPLE B-7

In a preparation vessel having an inner capacity of 250 L equipped with an agitator, a partial condenser, a thermometer, a dropping funnel and a nitrogen gas introducing tube, 27.66 kg of m-xylylenediamine, 26.41 kg of adipic acid and 3.45 kg of cyclohexanedicarboxylic acid, which had been precisely weighed, were mixed at an inter temperature of 100°C to obtain a transparent solution. 1.54 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 0.8 g of CH_3COONa as additives were added thereto, followed by agitating for 15 minutes. The resulting solution was transferred to a reaction vessel having an inner capacity of 270 L, and then reacted under stirring in conditions of an inner temperature of 190°C and an inner pressure of 1.0 MPa. While water distilled was removed outside the system, at a time where the inner temperature became 235°C, the inner pressure was returned to ordinary pressure over 60 minutes. The inner temperature was gradually increased to 260°C. The solution was agitated at ordinary pressure, and the stirring operation was terminated when a target viscosity was obtained, followed by allowing to stand for 20 minutes. Thereafter, a molten resin was taken out from a discharge port at a lower part of the reaction vessel, and the resin was then solidified by cooling and cut with a strand cutter to obtain resin chips. The resulting resin had a relative viscosity (RV) of 2.3 and a Co-b value of 6.6. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were $\text{P} = 9$ ppm and $\text{Na} = 10$ ppm, respectively. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, and then cooled to obtain chips. The RV was 2.30, the Co-b value was 6.9, and the water content was 250 ppm, in this stage. The polyamide resin composition was fused

by using a uniaxial extruder and extruded in a given amount at a rate of 6 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 2.8. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0078] on page 54 as follows:

EXAMPLE B-8

The polymerization method of polyamide was carried out in the same manner as in Example B-1 except that 0.53 g of H_3PO_2 and 1.5 g of $\text{LiOH} \cdot \text{H}_2\text{O}$ as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of 9.2. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.67, the Co-b value was 9.4, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms, sodium atoms and lithium atoms were $\text{P} = 5$ ppm, $\text{Na} = 0.1$ ppm and $\text{Li} = 5$ ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time.

The back pressure increasing coefficient K^* after extruding for 4 hours was 2.2. Observation of the filter revealed that no clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0079] on page 56 as follows:

EXAMPLE B-9

The polymerization method of polyamide was carried out in the same manner as in Example B-1 except that 0.53 g of H_3PO_2 and 0.8 g of KOH as additives were added. The resulting resin had a relative viscosity (RV) of 2.10 and a Co-b value of 8.9. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.62, the Co-b value was 9.2, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms, sodium atoms and potassium atoms were $P = 5$ ppm, $Na = 0.1$ ppm and $K = 5$ ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 3.8. Observation of the filter revealed that no clogging was found. Observation of the heat

deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0080] on page 57 as follows:

REFERENCE EXAMPLE 1

The polymerization method of polyamide was carried out in the same manner as in Example B-1 except that 0.86 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 2.65 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.11 and a Co-b value of 5.0. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, and then cooled to obtain chips. The chips had a water content of 250 ppm. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were $\text{P} = 25$ ppm and $\text{Na} = 93$ ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 6 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 4.5. Observation of the filter revealed that clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0081] on page 58 as follows:

The polymerization method of polyamide was carried out in the same manner as in Example B-1 except that 5.1 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 4.0 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of 3.4. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.65, the Co-b value was 3.8, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphorous~~ phosphorus atoms and sodium atoms were P = 30 ppm and Na - 45 ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure of the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 6.0. Observation of the filter revealed that slight clogging was found but was in a level causing no practical problem. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0082] on page 59 as follows:

COMPARATIVE EXAMPLE 1

The polymerization method of polyamide was carried out in the same manner as in Example A-1 except that 6.84 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 10.59 g of CH_3COONa as additives were

added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of -2.2. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.65, the Co-b value was -2.9, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphoreous~~ phosphorus atoms and sodium atoms were P = 200 ppm and Na = 440 ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm, and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K* after extruding for 4 hours was 20. Observation of the filter revealed that clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that no gelled product due to heat deterioration was observed.

Amend the paragraph [0083] on page 60 as follows:

COMPARATIVE EXAMPLE 2

The polymerization method of polyamide was carried out in the same manner as in Example A-1 except that 4.55 g of NaH₂PO₂·H₂O and 3.52 g of CH₃COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of -1.0. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then

cooled to obtain chips. The RV was 2.65, the Co-b value was -1.7, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphoreous~~ phosphorus atoms and sodium atoms were P = 133 ppm and Na = 190 ppm, respectively. The polyamide resin composition was fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μ m, and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K* after extruding for 4 hours was 29. Observation of the filter revealed that clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that gelled products due to heat deterioration were observed.

Amend the paragraph [0084] on page 61 as follows:

COMPARATIVE EXAMPLE 3

The polymerization method of polyamide was carried out in the same manner as in Example A-1 except that 5.13 g of $\text{NaH}_2\text{PO}_2 \cdot \text{H}_2\text{O}$ and 3.42 g of CH_3COONa as additives were added. The resulting resin had a relative viscosity (RV) of 2.15 and a Co-b value of -1.0. The resulting resin was dried in a 100 L blender at an inner temperature of 120°C for 12 hours, further subjected to solid phase polymerization at an inner temperature of 180°C, and then cooled to obtain chips. The RV was 2.65, the Co-b value was -1.5, and the water content was 200 ppm, in this stage. The residual amounts of ~~phosphoreous~~ phosphorus atoms and sodium atoms were P = 100 ppm and Na = 220 ppm, respectively. The polyamide resin composition was

fused by using a uniaxial extruder and extruded in a given amount at a rate of 3 g/min by using a gear pump. Foreign matters in the polymer were filtered with a filter having a filtering diameter of 20 μm , and the pressure on the secondary side of the gear pump was recorded with lapse of time. The back pressure increasing coefficient K^* after extruding for 4 hours was 17.

Observation of the filter revealed that clogging was found. Observation of the heat deterioration state of the resulting extrusion molded article revealed that gelled products due to heat deterioration were observed.